

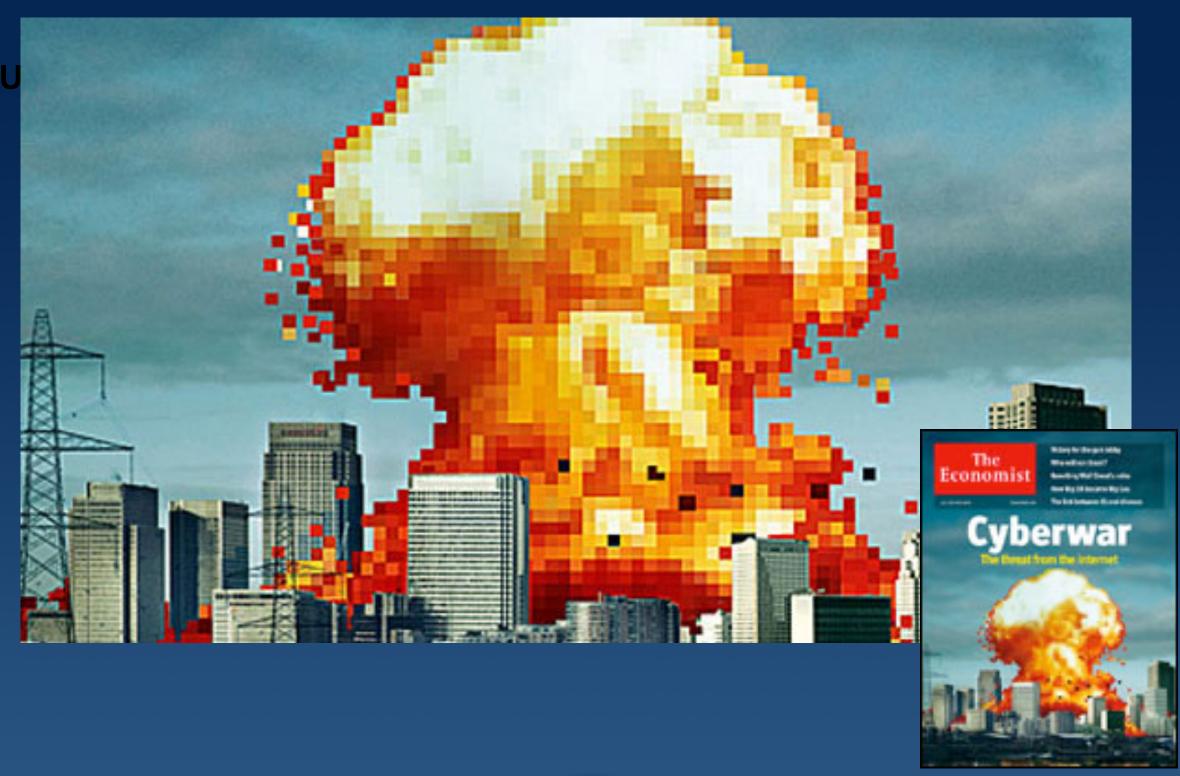
Cybersecurity

Allan Friedman, PhD
Director of Cybersecurity Initiatives, National
Telecommunications and Information Administration, US
Department of Commerce

When should I pay attention?

- Unpacking the term 'cybersecurity'.
- How we can think about the problem and the solutions.
- How NTIA works with stakeholders to address ecosystem-wide cybersecurity challenges.
- Some basic advice on how to stay safe online







Topics discussed in *Economist* cover article





Technology Issues

Cyber Terrorism
Cyber Crime



Distribution of paragraph by topic Economist, July 1 2010



"cybersecurity"









"cybersecurity"



- Conflict
- Crime
- Competitiveness





Threats





Value at risk





Risks How did we get here?



Complexity





Connectivity





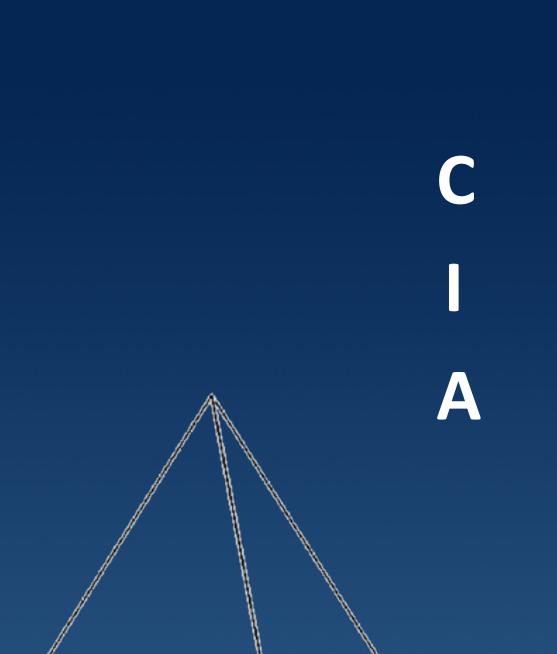
Private Sector Role





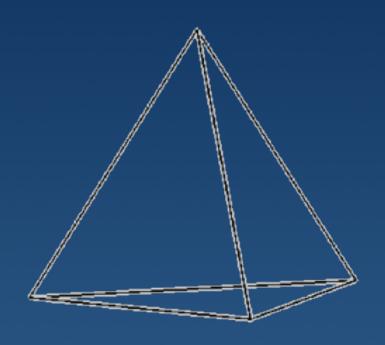
Securing Insecurity



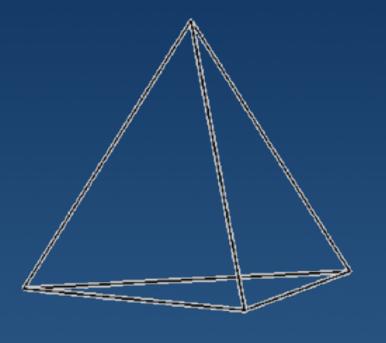




Confidentiality I ntegrity A vailability



Confidentiality I ntegrity A vailability



Resilience



Thinking about Security Technology



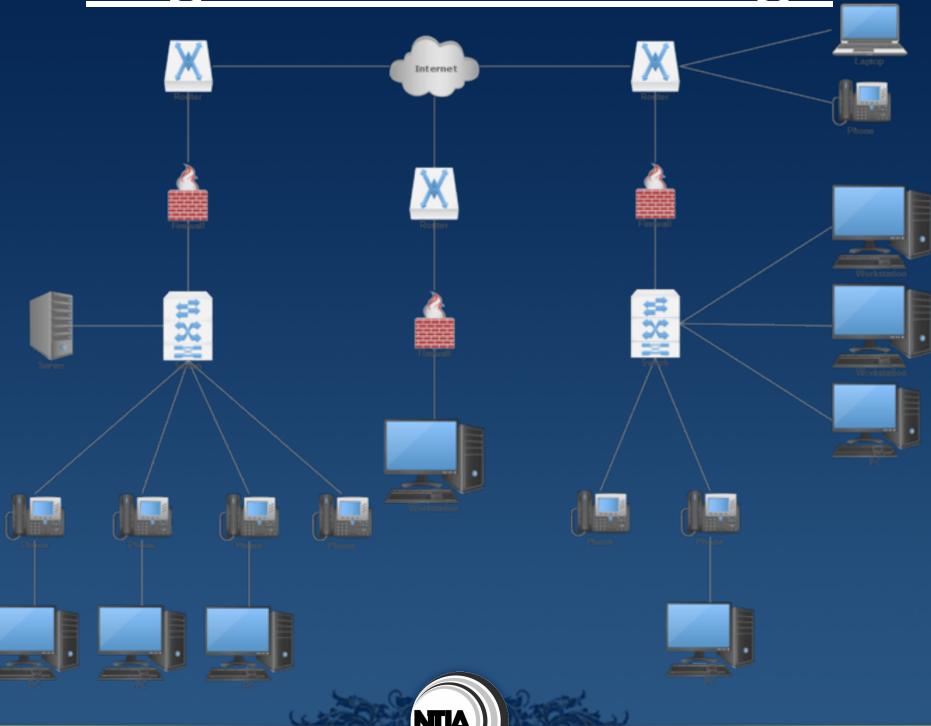


Thinking about Security Technology





Thinking about Security Organizational Change



Thinking about Security Organizational Change

- Identify
- Protect
- Detect
- Respond
- Recover

(NIST Framework)



Thinking about Security Markets





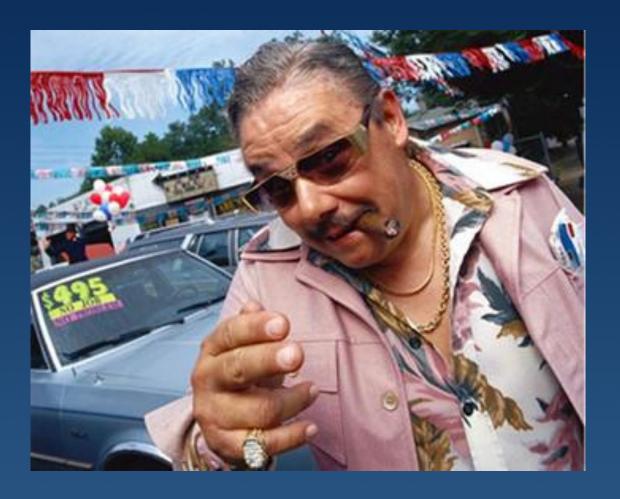


Security is Expensive





Asymmetric Information





Tragedy of the Commons



Driving Private Behavior

Prescribed process

Risk Analysis

Deterrence







Risk Evaluation Principles





Risk Evaluation Requirements



So what do we do?









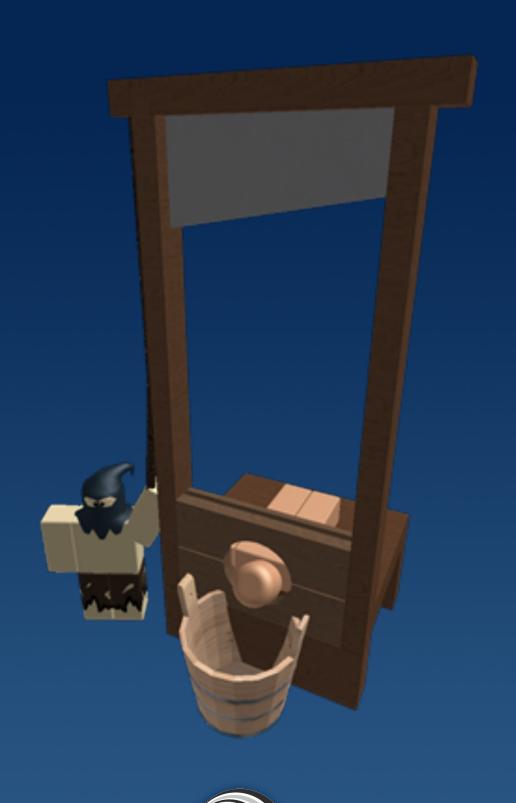




So what do we do?







Multistakeholder Process









Multistakeholder Process

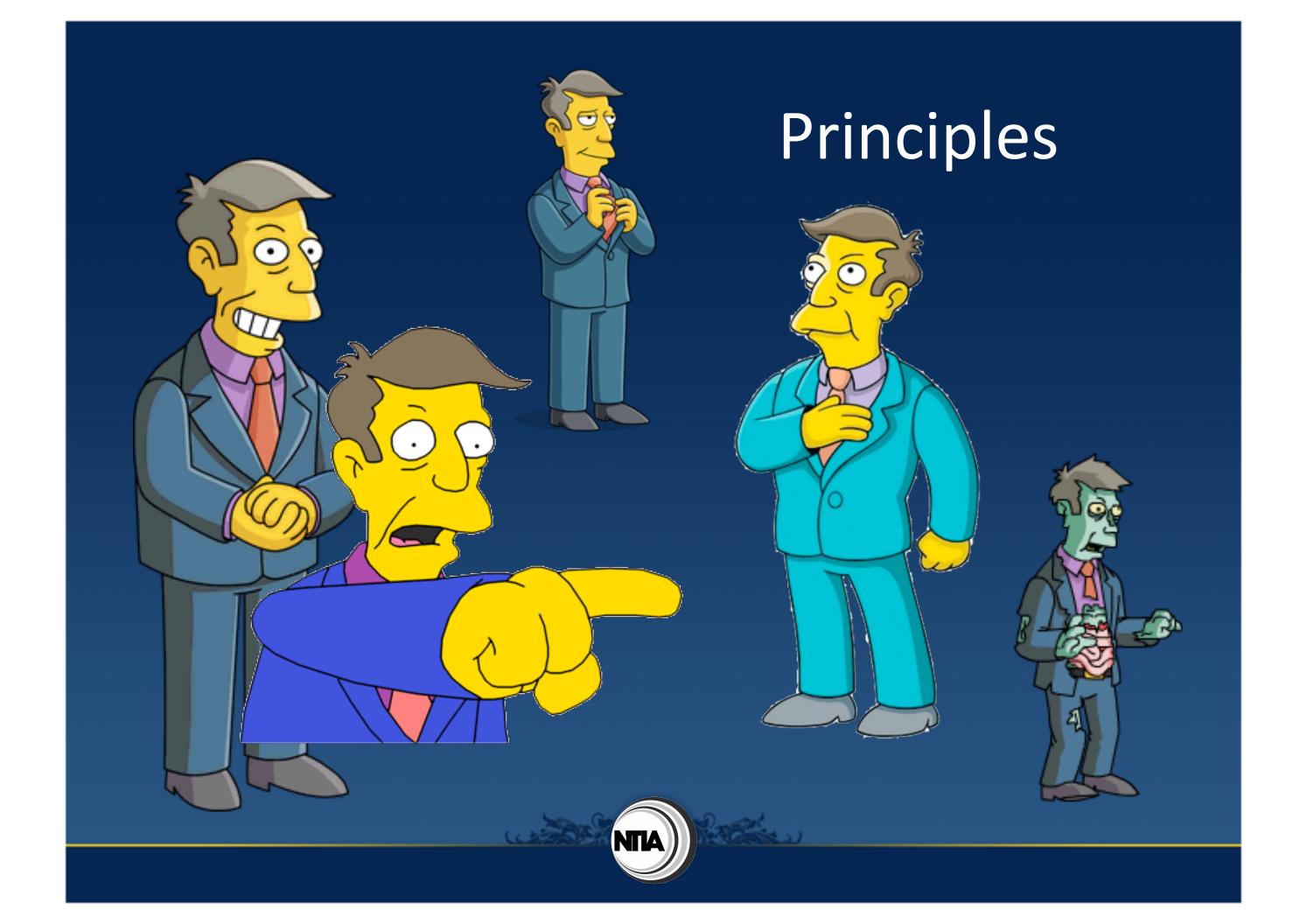
- Open
- Transparent
- Consensus-based
- Results-oriented











Vulnerability Disclosure

I hacked the Dutch government and all I got was this lousy t-shirt



Vulnerability Disclosure



Vulnerability Disclosure



Internet of Things





The 'S' in 'loT'



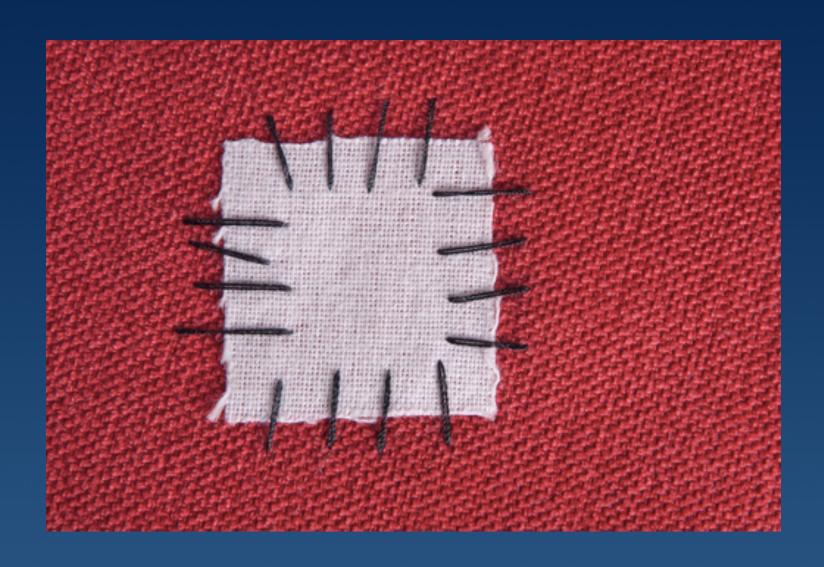
The 'S' in 'loT'



"Just build things securely!"



Patching





tl;dr

- Cybersecurity is a complex issue, covering a range of fields, requiring multiple tools and approaches.
- We need to understand the technical, organizational, and market aspects.
- Commerce is making a difference!
- NTIA uses multistakeholder processes to catalyze industry action.

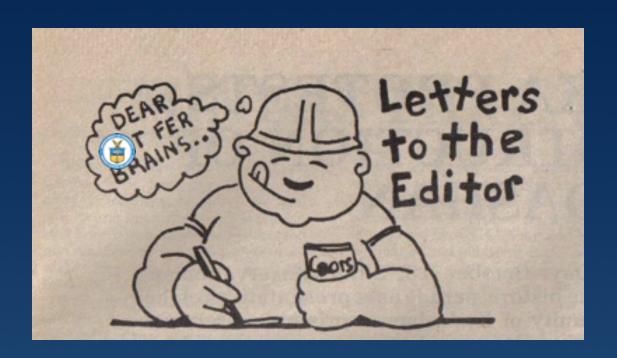


What you can do:

- Make sure your devices are up to date.
- Use a password manager and 2-Factor authentication
- Back up data and files frequently
- Be careful with your connections: plugging in phones or connecting to wifi networks in strage places



Thank You!



afriedman@ntia.doc.gov

